

The Role of Methodology in the Economics Curriculum

Sheila C Dow

A contribution to M A Madi and J Reardon (eds), *The economics curriculum: towards a radical reformulation*. College Publications, in collaboration with the WEA.

Introduction

The purpose of this chapter is to argue that methodology should be in the core of the economics curriculum. Methodology is often taken to mean simply the selection and application of methods within a given approach. But methodology is much more than that. It allows us to understand why there are different approaches to economics and how we might analyse them and foster constructive communication between them. More fundamentally it helps us to understand and discuss our subject. It should therefore be a central feature of a curriculum designed to teach the subject. But at another level, understanding of methodology also provides a basis for considering curricular reform.

In what follows, we consider first in more detail what is meant by methodology. Following a reflection on the context for reform of the curriculum, the methodological issues underlying this reform are set out. This is followed by a discussion of the role, timing and content of methodology in the curriculum itself.

The meaning of methodology

Methodology includes as a subfield discussion of choice of methods, such as over which econometric method to use, how to use it and how to assess its results. But this kind of discussion rests on huge methodological assumptions, about how the subject matter is being understood, what place theory and evidence play in building up knowledge about it, and therefore how far econometric techniques are appropriate to the question at hand. In other words, by far the more important discussion concerns methodological *approach* as prior to any discussion of specific methods.

Within mainstream texts, discussion of methodology in the full sense is touched only, if at all, at the start of introductory textbooks. But then this discussion consists of assertions about the subject matter of economics and about the economist's 'way of thinking', i.e. about the particular mainstream methodological approach. Parkin, Powell and Matthews (2012) and Mankiw and Taylor (2006) make typical statements along these lines, although in more detail than many other introductory texts. Economics is stated to be concerned with rational choice. Theory is equated with models, which are built up by applying deductive logic to the rationality axioms, where the models' assumptions are regarded as simplifications of reality. Testing of these models' predictions is the subject matter of separate econometrics courses. By implication, the theory which best fits the facts is deemed to be the most scientific.

This understanding of methodology reflects the general (simplified) understanding of the type of methodology which arose from the philosophy of science literature in the 1930s and 1940s. The implication of this philosophy was that it was feasible, and indeed desirable, to distinguish between science and non-science, and to establish not only the best theory but also the best methodology. But logical positivism has since been discredited in the philosophy of science

literature. In any case traditional philosophy of science has failed on its own terms in economics. The evidence from the economics literature is that neither deductive reasoning nor confirming evidence has been enough to establish which is the best theory or methodology; additional factors must explain the dominance of the mainstream approach. There have for example been cases where discovery of logical flaws (as in the Cambridge capital controversies) has not dislodged theories. Also contrary evidence has not proved decisive, as in the emergence of the financial crisis within what mainstream theory had theorised as a self-stabilising financial system. Alternative, non-mainstream, approaches and their theories are not addressed by reason and evidence, but rather are dismissed as falling outside the mainstream definition of what constitutes ‘scientific’ economics. Mainstream textbooks thus present their version of economics as definitive.

According to the traditional approach to methodology (exemplified by Blaug 1980), episodes of defense of the mainstream *in spite of* reason and evidence indicate, not only an oversimplified understanding of traditional philosophy of science, but also poor scientific practice. But there is now a range of methodological approaches to understanding and clarifying why economics is as it is. The field of methodology has moved on to becoming something much more complex and wide-ranging than its traditional form. It has grown into a field of its own, with an international organisation (the International Network for Economic Method) and an academic outlet, the *Journal of Economic Methodology*. Methodology now encompasses all the issues surrounding the co-existence of different legitimate methodological approaches, as well as the study of different theories and methods within each approach.

This new field of methodology is equipped to analyse different methodological approaches by taking account of such matters as the range of types of reasoning which can be applied, the scope for different interpretations of evidence and the sociological structure of the economics

profession, including the sociology of economic education (see Hands 2001, Dow 2002 and Boumans and Davis 2010). This type of methodology includes analysis of different understandings of the nature of economic systems and therefore how we characterise economics itself. It can cover what is and what is not regarded as a good argument, or even what counts as an argument within the economics discourse. Is discussion of moral values separable from economics or integral to it, for example? Methodology thus deals with economics in its fullest sense.

The methodological context of curriculum reform

The content of the economics curriculum has long been a matter for discussion. It has been driven sometimes by institutional arrangements, such as the national benchmarking exercise in the UK designed to standardise (not to reform) core economics teaching across all public universities. This type of exercise itself makes a strong methodological presumption, that the subject matter and the approach to it can reasonably be standardised. This standardisation has been promoted further by the dominance of teaching to mainstream textbooks. While these textbooks may include reference to differences of opinion within economics, the resolution of these differences is portrayed as a straightforward matter of logic and evidence. Textbooks may refer also to the history of economic thought, but only in Whiggish terms of demonstrating how theory has advanced (Roncaglia 2014). Theory is presented in formal mathematical terms and becomes increasingly technical as teaching advances, so that there is an increasing emphasis on acquiring the relevant technical training.

There has long been an argument that this approach to the curriculum is unduly narrow, reflecting the increasing hold of mathematical formalism in the second half of the twentieth century charted, and critiqued, by Blaug (1999). Colander and Klammer (1987) had gathered evidence of

disaffection among graduate students in the US with a curriculum which prioritised technical mastery over policy relevance. In 2000 French economics students led a call for teaching by means of debates, encouraging similar student calls elsewhere and setting in train the development of the Post-autistic Economics movement (Fullbrook, ed., 2003) and ultimately the emergence of the World Economics Association. The calls from students were not for replacing the mainstream as such but for a different mode of teaching which would provide students with the training as a basis for understanding economics better and also making up their own minds as to their preferred approach. This was a methodological argument for pluralism in economics education, which was part of a more general methodological argument for pluralism.

This argument for curricular reform (as well as for pluralism) has gained force with the 2007-09 financial crisis and its aftermath. The crisis has exposed the methodological presumptions of the mainstream approach and the resulting neglect in the curriculum of alternative methodological approaches. It has also exposed the lack of preparation students had generally been given for contemplating what might be required methodologically in considering any other form of analysis of the crisis. More widely the crisis has exposed the lack of understanding among economists, not only of the economy, but also of economics itself. It is the meta-methodological perspective, that there are several approaches that might be taken to economics, none of which can be demonstrated to be best, which therefore underpins the argument for curricular reform. Methodological issues are central to the argument for curricular reform.

Curricular reform should include attention to providing students with methodological training, not only so that they can understand the pluralist framework of their education, but also so that they can understand the different methodological perspectives and learn how to analyse them. The same methodological reasoning underpins arguments for including history of economic

thought in the curriculum (Dow 2009, Roncaglia 2014). The methodological argument for curriculum reform includes the argument for methodological content.

The role, timing and content of a methodology addition to the curriculum

At present most students are presented with a few pages at best at the beginning of their introductory textbooks about the nature of economics and its methodology, never to meet methodological enquiry again in the core curriculum. But in these few textbook pages a whole methodological approach is set out as a *fait accompli*, specifying a particular version of the subject matter and specifying how knowledge is to be built up. The typical assertions as to the equation of models with theories, and the classification of the assumptions of models as simplifications involve huge methodological leaps. Yet, by covering this ground at the very beginning of economics education in this simplistic way, these textbooks lull students into thinking that no significant issues are involved.

The role of methodology in the curriculum should instead provide some grounding in the philosophy of science as it applies to economics so that there is awareness, whenever later courses proceed with one approach or another, of what is being assumed about the nature of the subject matter and the best way to build knowledge about it. Once students have acquired some methodological awareness, the course is set for them to pick up methodological ideas and to better understand the contents of their other courses. But to acquire this awareness in the first place would clearly require much more substantive teaching than the kind of cursory treatment currently provided in mainstream textbooks.

It might be thought that this would be far too ambitious for students when they first encounter economics. But it is instructive to recall the UK higher education debates in the nineteenth century about the timing of philosophy education. On the one hand the predominantly Oxford-based approach required a prior foundation of other academic knowledge, so that philosophy was only taught, if at all, late in the degree. Philosophy could then be applied to their prior specialist knowledge of other subjects. On the other hand the Scottish approach started the higher education curriculum with moral philosophy, on which all other subjects then built (an approach which persisted until the 1970s). The Oxford approach was to teach subjects as specialisms, focusing on what was regarded as the best theory, while the Scottish approach was to teach subjects historically, explaining the different approaches (e.g. to mathematics, as well as to philosophy) taken at different times to address different problems. This provided the environment for the birth of modern economics, taught as topical applications of moral philosophy with which young students could engage.

Introducing students to economics through methodology may sound daunting, but it can be done in simple ways, leaving the use of the more impenetrable technical terms and more sophisticated methodological analysis until later optional specialist courses. Methodology can be taught implicitly, e.g. by making it clear that economics is up for discussion. Thus, as with the Scottish students in the eighteenth century, the philosophical material could be made more accessible by pursuing it in terms of topical issues, especially debates in society at large on economic topics. Thus for example different theoretical explanations for the 2007-09 financial crisis could be explored in broad terms by exploring the assumptions being made about the nature of the economy and which are the acceptable forms of argument (see Dow 2009). Similarly, the millennium generated a lot of reflection on the state of economics. Weintraub (1999) set out in a

very accessible way a range of different accounts of economics at the millennium which would arise from different methodological/historiographical positions. This exercise was a blend of history of thought and methodology, a good example of how history of thought can form part of this introductory teaching. Again this might be thought to be daunting for students new to economics. But in fact it is not uncommon for introductory courses in other social sciences to start with great political economy figures such as Smith and Marx, putting standard introductory economics teaching to shame.

While this kind of introductory material could not go into much depth either on methodological or economic theory, it is the awareness it generates on which ever more advanced material can be built. But more advanced economics would need to be taught with this methodological awareness in mind. Once students are armed with some basic concepts their further studies are seen through different eyes. Once students understand the concept of dualism for example they will see it everywhere in mainstream theory and understand theory better as a result. Once students understand that methodological approach is contestable, they will be better able to engage in argument and understand better the arguments in the literature and in society more widely. This is an important aspect of education.

Much of the recent research in methodology is directly applicable in teaching in a range of fields, since it provides descriptive accounts of different bodies of research. Thus for example there is a growing interest in methodological issues for experimental economics (see for example the special symposium in the *Journal of Economic Methodology*, 18 (2), 2011). The priority should be to have methodological awareness permeating all teaching. The standard approach is to teach a preferred theory, referring to other theories (if at all) in order to demonstrate the superiority of the preferred theory. A methodologically aware approach would be to explain the different

philosophical underpinnings of competing theories, possibly in order to make an argument for one set of theory over another, but nevertheless regarding this as a matter, not just for fuller understanding, but also for potential debate. The idea of teaching by reference to debates was central to the French students' demands in 2000.

What is being proposed is particularly challenging for teachers not accustomed to teaching in this way. Some transitional programme would be required to raise the methodological awareness and knowledge of teaching staff. A particular incentive to engage with this exercise would be provided by the reactions they can expect were they to follow the traditional pattern of teaching; students who are introduced at the very start to methodology will find it hard to accept unsupported assertions as to what economics is and how economists think. It would take time for methodological awareness to become established. But an excellent start is being made by the next generation of teachers, the students who are currently actively seeking and promoting curricular reform.

References

Blaug, M (1980) *The Methodology of Economics, or how economists explain*. Cambridge: Cambridge University Press.

Blaug, M (1999) 'The Formalist Revolution or What has Happened to Orthodox Economics after World War II', in R E Backhouse and J Creedy (eds), *From Classical Economics to the Theory of the Firm: Essays in Honour of D. P. O'Brien*. Cheltenham: Elgar, pp. 257-80.

Boumans, M and Davis, J B (2010) *Economic Methodology: understanding economics as a science*. London: Palgrave Macmillan.

Colander, D C and Klamer, A (1987) 'the Making of an Economist', *Journal of Economic Perspectives* 1: 95-113.

Dow, S C (2002) *Economic Methodology: an inquiry*. Oxford: Oxford University Press.

Dow, S C (2009) 'History of Thought and Methodology in Pluralist Economics Education', *International Review of Economic Education*, 8(2): 41-57.

Fullbrook, E, ed. (2003) *The Crisis in Economics. The post-autistic economics movement: the first 600 days*. London: Routledge.

Hands, D W (2001) *Reflection without Rules: Economic Methodology and Contemporary Science Theory*. Cambridge: Cambridge University Press.

Krueger, A O et al. (2001) 'Report on the Commission on Graduate Education in economics', *Journal of Economic Literature* 29: 1035-53.

Mankiw, R G and Taylor, M P (2006) *Economics*. London: Thomson.

Parkin, M, Powell, M and Matthews, K (2012) *Economics* (European edition, 8th edition). London: Pearson.

Roncaglia, A (2014) 'Should the History of Thought be included in Undergraduate Curricula?', *Economic Thought* 3 (1): 1-9.

Weintraub, E R (1999) 'How Should We Write the History of Twentieth-Century Economics?',
Oxford Review of Economic Policy, 15: 139-52.